

159 14578

Date 12/5/97

SUMMARY OF SAFETY AND EFFECTIVENESS

FEB 23 1998

SUBMITTED BY:

Virginia C. Weinknecht  
Regulatory Affairs Specialist  
Becton Dickinson Microbiology Systems  
7 Loveton Circle  
Sparks, MD 21152

NAME OF DEVICE:

Trade Name: Grepafloxacin, 5 mcg, Sensi-Discs  
Catalog Numbers 4331711, 4331712

Common Name/Description: Antimicrobial Susceptibility Test Discs

Classification Name: Antimicrobial Susceptibility Test Discs

PREDICATE DEVICE: Other BBL® Sensi-Discs® such as  
Ciprofloxacin, 5 mcg, Sensi-Disc®

DEVICE DESCRIPTION:

INTENDED USE:

Antimicrobial Susceptibility Test Discs are used for semi-quantitative *in vitro* susceptibility testing by standardized agar diffusion test procedures. Grepafloxacin Sensi-Discs® are intended for use in determining the susceptibility to Grepafloxacin of a wide range of bacteria, including *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Streptococcus agalactiae*, *Streptococcus pneumoniae*, *Streptococcus pyogenes*, *Citrobacter freundii*, *Citrobacter (diversus) koseri*, *Enterobacter aerogenes*, *Enterobacter cloacae*, *Escherichia coli*, *Haemophilus parainfluenzae*, *Klebsiella oxytoca*, *Klebsiella pneumoniae*, *Morganella morganii*, *Proteus mirabilis*, and *Proteus vulgaris*. Zone sizes used for interpretation of tests, including control organism limits, were determined by the antimicrobial manufacturer, GlaxoWellcome, Inc., and received FDA approval under NDA No. 50-717.

## INDICATIONS FOR USE:

Use of BBL® Grepafloxacin Sensi-Discs® for *in vitro* agar diffusion susceptibility testing is indicated when there is a need to determine the susceptibility of bacteria to Grepafloxacin.

Grepafloxacin has been shown to be active against most strains of microorganisms listed below, both *in vitro* and in clinical infections, as described in the GlaxoWellcome, Inc., package insert for this antimicrobial.

### **Aerobic Gram-Positive Microorganisms**

*Streptococcus pneumoniae* (penicillin-susceptible strains)

### **Aerobic Gram-Negative Microorganisms**

*Haemophilus influenzae*

*Moraxella catarrhalis*

*Neisseria gonorrhoeae*

### **Other microorganisms**

*Chlamydia trachomatis*

*Mycoplasma pneumoniae*

Grepafloxacin exhibits *in vitro* minimum inhibitory concentrations (MICs) of 1 µg/ml or less against most ( $\geq 90\%$ ) strains of the microorganisms listed below; however, the safety and effectiveness of Grepafloxacin in treating clinical infections due to these microorganisms have not been established in adequate and well-controlled clinical trials.

### **Aerobic Gram-Positive Microorganisms (*In Vitro* Only)**

*Staphylococcus aureus* (methicillin-susceptible strains)

*Staphylococcus epidermidis* (methicillin-susceptible strains)

*Streptococcus agalactiae*

*Streptococcus pneumoniae* (penicillin-resistant strains)

*Streptococcus pyogenes*

### **Aerobic Gram-Negative Microorganisms (*In Vitro* Only)**

*Citrobacter freundii*

*Citrobacter (diversus) koseri*

*Enterobacter aerogenes*

*Enterobacter cloacae*

*Escherichia coli*

*Haemophilus parainfluenzae*

*Klebsiella oxytoca*

*Klebsiella pneumoniae*

*Morganella morganii*

*Proteus mirabilis*

*Proteus vulgaris*

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K974578

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*Streptococcus pneumoniae* (penicillin-resistant strains)

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*Enterobacter aerogenes*

*Enterobacter cloacae*

*Escherichia coli*

*Haemophilus parainfluenzae*

*Klebsiella oxytoca*

*Klebsiella pneumoniae*

*Morganella morganii*

*Proteus mirabilis*

*Proteus vulgaris*

## PRODUCT DESCRIPTION:

Grepafloxacin Susceptibility Test Discs are prepared by impregnating high quality paper with accurately determined amounts of Grepafloxacin supplied by the manufacturer, GlaxoWellcome, Inc., Research Triangle Park, North Carolina. Each Grepafloxacin disc is clearly marked on both sides with the agent and content. Grepafloxacin discs are furnished in cartridges of 50 discs each. Grepafloxacin cartridges are packed as either a single cartridge in a single box, or in a package containing ten cartridges.

Agar diffusion methods employing dried filter paper discs impregnated with specific concentrations of antimicrobial agents were developed in the 1940's. In order to eliminate or minimize variability in the testing, Bauer et al. developed a standardized procedure in which Mueller Hinton Agar was selected as the test medium.

Various regulatory agencies and standards-writing organizations subsequently published standardized reference procedures based on the Bauer-Kirby method. Among the earliest and most widely accepted of these standardized procedures were those published by the U.S. Food and Drug Administration (FDA) and the World Health Organization (WHO). The procedure was adopted as a consensus standard by the National Committee for Clinical Laboratory Standards (NCCLS) and is periodically updated. The latest NCCLS documents are M2-A6 (1/97) and M100-S7 (1/97).

Discs containing a wide variety of antimicrobial agents are applied to the surface of Mueller Hinton Agar plates [or Haemophilus Test Medium Agar for *Haemophilus influenzae* or Mueller Hinton Agar with 5% Sheep Blood for *Streptococcus pneumoniae*] inoculated with pure cultures of clinical isolates. Following incubation, the plates are examined and the zones of inhibition surrounding the discs are measured and compared with established zone size ranges for individual antimicrobial agents in order to determine the agent(s) most suitable for use in antimicrobial therapy. The determination as to whether the organism in question is susceptible (S), intermediate (I), or resistant (R) to an antimicrobial agent is made by comparing zone sizes to those found in the respective organism tables of National Committee for Clinical Laboratory Standards (NCCLS) Document M2-A6 ("Performance Standards for Antimicrobial Disk Susceptibility tests - Sixth Edition, Approved Standard", 1/97) and of NCCLS Document M100-S7 ("Performance Standards for Antimicrobial Susceptibility Testing", Seventh Informational Supplement, 1/97).

**PERFORMANCE DATA:**

**See attached GlaxoWellcome, Inc., product insert section on Susceptibility Tests - Diffusion Techniques for RAXAR™ Tablets (grepafloxacin hydrochloride tablets).**



Food and Drug Administration  
2098 Gaither Road  
Rockville MD 20850

Ms. Virginia C. Weinknecht  
Regulatory Affairs Specialist  
Becton Dickinson Microbiology Systems  
7 Loveton Circle  
Sparks, Maryland 21152

FEB 23 1998

Re: K974578  
Trade Name: Grepafloxacin, 5 mcg, Sensi-Discs  
Catalog Number 4331711, 4331712  
Regulatory Class: II  
Product Code: JTN  
Dated: December 5, 1997  
Received: December 8, 1997

Dear Ms. Weinknecht:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

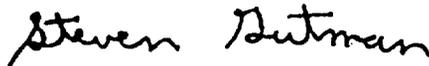
If your device is classified (see above) into either class II (Special Controls) or class III (Pre-market Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the current Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic (QS) inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your pre-market notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal Laws or Regulations.

Under the Clinical Laboratory Improvement Amendments of 1988 (CLIA-88), this device may require a CLIA complexity categorization. To determine if it does, you should contact the Centers for Disease Control and Prevention (CDC) at (770)488-7655.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4588. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll free number (800) 638-2041 or at (301) 443-6597 or at its internet address "<http://www.fda.gov/cdrh/dsmamain.html>"

Sincerely yours,



Steven I. Gutman, M.D., M.B.A.  
Director  
Division of Clinical  
Laboratory Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

Device Name: Grepafloxacin, 5 mg, Sensi-Disc®

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*Enterobacter cloacae*                      *Proteus mirabilis*

*Escherichia coli*                      *Proteus vulgaris*

*Haemophilus parainfluenzae*

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use  OR  
Per 21 CFR 801.109

Over-The-Counter Use   
Optional Format 1-2-96

*Plotter*  
(Division Sign-Off)  
Division of Clinical Laboratory Devices  
510(k) Number K971578